

REMARKSThe rejection under 35 U.S.C. 112.

Claims 26-28 and 31 stand rejected under 35 U.S.C. 112, second paragraph, as indefinite. The office action states that “[t]he limitation of both ‘substantially’ and ‘about’ creates an indefinite limitation due to about not further limiting substantially or vice-versa.” Claim 31 has been amended by deletion “substantially” so as to avoid any possible indefiniteness.

The rejection under 35 U.S.C. 102.

Claims 2-3, 21-23 and 29-30 stand rejected as anticipated by Kimura (U.S. Patent No. 4,886,955). The 13 November 2009 office action (at pages 3-4) states that in Kimura “the power supply (capacitor 39) having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages (column 4, lines 24-29, 35-44)....”

This quoted statement is not correct. Capacitor 39 in Kimura receives power from source 35 which does not change. Capacitor 39 is not a power supply having a DC voltage output of substantially a predetermined value regardless of whether the input is coupled to the domestic (110V) AC voltage or the foreign (220V) AC voltage as recited in present claims 29-31. If the capacitor 39 in Kimura were charged by a domestic power supply it would have a voltage output of 110V (domestic supply voltage). If the capacitor 39 in Kimura were charged by a foreign power supply it would have a voltage output of 220V (foreign supply voltage). Thus the power supply 39 of Kimura when provided with a domestic supply voltage will provide one value (110V) and when provided with a foreign supply voltage will provide a different value (220V). For at least these reasons Kimura does not disclose “a power supply having a DC voltage output of substantially a predetermined value regardless of whether the input is from the domestic AC voltage source or the foreign AC voltage source” as recited in claim 30.

The above-quoted statement that “the power supply (capacitor 39) having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages” mischaracterizes what is stated in claim 30. Claim 30 requires “a power supply having an input receiving one of a domestic AC voltage source and a foreign AC voltage source, the power supply having a DC voltage output of substantially a predetermined value regardless of whether the input is from the domestic AC voltage source or the foreign AC voltage source....” Claim 30 does not recite a power supply of any “range of AC voltages” as stated in the office action, rather it requires “a power supply having an input receiving one of a domestic

AC voltage source and a foreign AC voltage source" which is specific to the input voltages. Also, claim 30 power supply has "a DC voltage output of substantially a predetermined value" regardless of whether the input is domestic or the foreign. Applicants disclose a DC output of about 24V regardless of whether the input is domestic(110V) or the foreign (220V). Even if Kimura disclosed the possibility for a domestic(110V) or the foreign (220V) input (and such is not conceded) the result would be different outputs, not a DC voltage output of substantially "a" predetermined value as recited in claim 30.

The office action states

[w]ith respect to the limitations of the apparatus being operable by a supply voltage that is either a domestic AC voltage or a foreign AC voltage is being deemed intended use, it has been held that a recitation with respect to the manner in which a claim apparatus/process is intended to be employed does not differentiate the claimed apparatus/process from a prior art apparatus/process satisfying the claimed limitations. (Office action pages 4-5.)

The above-quoted statement demonstrates that the language regarding the supply voltage being either domestic AC or foreign AC in the claim is improperly disregarded as a statement of intended use. Claim 31 recites a power supply having a DC voltage output of a predetermined value of about 24 volts DC regardless of whether the input is receiving the domestic AC voltage or the foreign AC voltage and this is a structural limitation. Claim 31 is directed to a beverage apparatus including a combination of elements including a controller, a heating element and a power supply having the output stated therein. These limitations, including the recitation of what the power supply is by stating what it does, may not be disregarded.

The functional aspect of the above-noted claim limitation is addressed in Section 2173.05(g) of the Manual of Patent Examining Procedure (MPEP) which provides, in part, that "[a] functional limitation is an attempt to define something by what it does, rather than by what it is...." and "[a] functional limitation must be evaluated and considered , just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used."

The office action states it is disregarding the manner in which the claimed apparatus works because the examiner considers it a statement of intended use, but the claimed language is

proper functional language at least because it describes the operation of the claimed structural elements, and disregarding such language violates "all elements" rule of claim construction.¹

The governing law is stated in Ethyl Molded Products Co. v. Betts Package Inc. 9 USPQ2d 1001, 1030 (DC EKy 1988).

It is well settled that there is nothing intrinsically wrong in defining something by what it does rather than by what it is. Product claims may be drafted to include process steps to wholly or partially define the claimed product. To the extent that the process limitations distinguish the products over the prior art, they must be given the same consideration as traditional product characteristics.²

As stated in these claims the power supply has the capability that the input couples to a domestic AC voltage or a foreign AC voltage. This capability is in combination with the limitation of the power supply having a fixed DC voltage output of substantially "a" predetermined value regardless of whether the input is coupled to the domestic AC voltage or the foreign AC voltage. This is not intended use, this is a structural and functional capability not taught or suggested by the prior art of record.

Accordingly, the office action statement improperly fails to consider all of the elements of the claims.

Claims 2-3 and 21-23 depend (directly or indirectly) from claim 30 and avoid rejection over Kimura for at least the same reasons as noted above with respect to claim 30.

Claim 29 recites a combination of steps including coupling an input of the power supply directly to the supply voltage regardless of whether the supply voltage is the domestic AC voltage or the foreign AC voltage and providing a DC output from the power supply. For the reasons discussed above, Kimura does not disclose providing a DC output regardless of whether the supply voltage is domestic or foreign. For at least this reason claim 29 avoids rejection over Kimura.

For all of the above reasons Kimura does not anticipate claims 2-3, 21-23 and 29-30 and withdrawal of the rejection is, respectfully, requested.

¹ Hollister Inc. v. E.R. Squibb & Sons Inc. U.S. Court of Appeals Federal Circuit CA FC 14 USPQ2d 2069 4/30/1990 Decided April 30, 1990.

² In re Hallman, 655 F.2d 212, 215 [210 USPQ 609, 611] (CCPA 1981).

The rejections under 35 U.S.C. 103.

Claim 4 stands rejected as obvious over Kimura in view of Miller (U.S. Patent No. 6,100,518). Claim 4 is dependent on claim 30 and Miller is not cited for and does not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claims 5-7, 11 and 16 stand rejected as obvious over Kimura in view of Herrick et al. (Patent Publication No. WO 00/11914). Claims 5-7, 11 and 16 are dependent on claim 30 and Herrick et al. is not cited for and does not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claims 7-12 stand rejected as obvious over Kimura in view of Funk (U.S. Patent Publication No. 2001/0048958). Claims 7-12 are dependent on claim 30 and Funk is not cited for and does not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claim 13 stands rejected as obvious over Kimura in view of Herrick et al. and Greenwald et al. (U.S. Patent Publication No. 2004/0163546). Claim 13 is dependent on claim 30 and Herrick et al. and Greenwald are not cited for and do not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claim 13 stands rejected as obvious over Kimura in view of Funk and Greenwald et al. (U.S. Patent Publication No. 2002/0130137). Claim 13 is dependent on claim 30 and Funk and Greenwald et al. are not cited for and do not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claims 14-15 and 17-20 stand rejected as obvious over Kimura in view of Funk and Liverani et al. (U.S. Patent Publication No. 2004/0163546). Claims 14-15 and 17-20 are dependent on claim 30 and Funk and Liverani et al. are not cited for and do not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claims 22-24 stand rejected as obvious over Kimura in view of Jarocki et al. (U.S. Patent No. 6,312,589). Claims 22-24 are dependent on claim 30 and Jarocki et al. is not cited for and does not make up for the above-noted deficiencies in Kimura with respect to claim 30.

Claims 2-4, 11, 13, 20-23, 29 and 30 stand rejected as obvious over Ihlenfeld (U.S. Patent No. 3,869,968) in view of Hirabayashi et al. (U.S. Patent No. 4,937,600).

The rejection regarding claim 30.

The beginning statement of the rejection refers to claim 30 but does not mention claim 31. In the body of the rejection claim 31, not claim is referenced. The reference to claim 31 in the body of the rejection is included in a discussion of claim steps thus it appears that rejection of claim 30 is intended, not claim 31.

What is missing from Ihlenfeld.

The office action discusses what is disclosed in Ihlenfeld and states, in part, that Ihlenfeld discloses “coupling the heating element directly to the supply voltage regardless of whether the supply voltage is the domestic AC voltage or the foreign AC voltage (see Figure 2)....” This is incorrect. Ihlenfeld does not disclose the above-quoted step. There is no disclosure in Ihlenfeld of a supply voltage that is domestic AC voltage or foreign AC voltage. Only domestic voltage is disclosed in Ihlenfeld, foreign voltage is not disclosed. Ihlenfeld’s coffee making apparatus has a heater 50 that uses a domestic AC voltage source and there is no disclosure of a foreign AC voltage source (as recited in claim 30) nor of a power supply having an input receiving a domestic AC voltage when the beverage heating apparatus is operated domestically and receiving a foreign AC voltage when the beverage heating apparatus is operated in a foreign country and no teaching or suggestion of the coupling steps of claim 29.

The office action states

Ihlenfeld discloses all of the limitations of the claimed invention, as previously set forth, **except** for the apparatus being operable over a range of AC voltages; a power supply having an input that couples to an AC voltage source, the power supply having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages; a heating element directly coupled to the AC voltage source in parallel with the power supply; and a controller coupled to the DC voltage output to receive power from the power supply, the controller being configured to control the operation of the heating element; the controller comprising a switch that is closeable to apply a specific AC voltage to the heating element if the beverage apparatus is operated in an area with a different AC voltage; the controller comprising a processor that controls the switch; the switch comprising a triac; a motor to which the DC voltage output of the power supply is coupled; and a temperature sensor that is coupled to the controller and that provides a signal to the controller which is indicative of a temperature. (Office action pages 17-18, emphasis added.)

Notwithstanding that the office action acknowledges all of the above-admitted deficiencies in Ihlenfeld, the office action goes on to suggest that these deficiencies are somehow made up for by Hirabayashi. The office action discusses Hirabayashi et al. and concludes

[i]t would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Ihlenfeld with a power supply having an input that couples to an AC voltage source, the power supply having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages; a heating element directly coupled to the AC voltage source in parallel with the power supply; and a controller coupled to the DC voltage output to receive power from the power supply, the controller being configured to control the operation of the heating of Hirabayashi et al. in order to provide a means for an apparatus to stably operate with plural of rated voltage of power sources (column 2, lines 12-15), thereby increasing the versatility of the apparatus. (Office action page 20.)

What is missing from Hirabayashi et al.

Hirabayashi et al. does not disclose a power supply having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages. Accordingly, the combination of Ihlenfeld and Hirabayashi et al. would not arrive at the claimed invention. Moreover, there is no motivation for the alleged combination of Ihlenfeld and Hirabayashi et al. as one of ordinary skill in the art would not have looked to the photocopy apparatus of Hirabayashi et al. to modify Ihlenfeld's coffee making machine. The devices of Ihlenfeld and Hirabayashi et al. are not analogous. The control disclosed by Hirabayashi et al. requires feedback from the roller being heated to ensure that the heating time, amount or roller heating, etc. is within the limits of one waiting for the photo copier to heat up so that copies can be made. This control is not something that one of ordinary skill in the beverage making art would want for the coffee making apparatus of Ihlenfeld.

The office action lacks a proper explanation.

There is no explanation in the office action of what structure is suggested to be taken from Hirabayashi et al. and how such structure would have been used to modify Ihlenfeld's coffee making machine. The examiner bears the initial burden of presenting a *prima facie* case

of obviousness.³ At the very least a *prima facie* case requires a clear explanation of what elements of Hirabayashi et al. are to be used in Ihlenfeld and how such elements of Hirabayashi et al. would be arranged with respect to the elements of Ihlenfeld to arrive at the claimed invention (i.e., a diagram of how the circuit of Ihlenfeld's Fig. 7 would change). Since there is no proper explanation of how the Ihlenfeld device is to be modified by using circuitry or other elements of Hirabayashi et al. there is no such *prima facie* case in the office action and it is apparent that the office action is improperly relying on hindsight by using the appellant's disclosure as a blueprint in an attempt to reconstruct the claimed invention from the isolated teachings of the prior art.⁴

The above-quoted obviousness statement concludes that modifying Ihlenfeld with element(s) of Hirabayashi et al would have been obvious "in order to provide a means for an apparatus to stably operate with plural of rated voltage of power sources (column 2, lines 12-15), thereby increasing the versatility of the apparatus." At column 2, lines 12-15 of Hirabayashi et al. it states "[a]ccordingly, it is a principle object of the present invention to provide an image forming apparatus which can stably operate with plural rated voltage of power sources." This is not a suggestion for modification of Ihlenfeld's coffee machine. The devices of Ihlenfeld and Hirabayashi et al. are non-analogous and one of ordinary skill in the beverage making art would not look to the photo copy machine art for modification. Notwithstanding the suggestion in the office action to the contrary, there is nothing in Hirabayashi et al. that would suggest the desirability of modification of Ihlenfeld's coffee maker. The conclusion of obviousness in the office action is speculation and has no reasonable basis. For all of the above reasons, the combination of Ihlenfeld and Hirabayashi et al. is improper and withdrawal of the rejection is respectfully requested.

Claims 5-7, 11 and 16 stand rejected as obvious over Ihlenfeld in view of Hirabayashi et al. and further in view of Herrick et al. Claims 5-7, 11 and 16 are dependent on claim 30 and Herrick et al. is not cited for and does not make up for the above-noted deficiencies in Ihlenfeld and Hirabayashi et al. with respect to claim 30.

³ See *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

⁴ See, e.g., *Grain Processing Corp. v. American Maize-Products Co.*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

Claims 7-12 stand rejected as obvious over Ihlenfeld in view of Hirabayashi et al. and further in view of Funk. Claims 7-12 are dependent on claim 30 and Funk is not cited for and does not make up for the above-noted deficiencies in Ihlenfeld and Hirabayashi et al. with respect to claim 30.

Claims 14-15 and 17-19 stand rejected as obvious over Ihlenfeld in view of Hirabayashi et al. and further in view of Herrick et al. Claims 14-15 and 17-19 are dependent on claim 30 and Herrick et al. is not cited for and does not make up for the above-noted deficiencies in Ihlenfeld and Hirabayashi et al. with respect to claim 30.

Claims 22-24 stand rejected as obvious over Ihlenfeld in view of Hirabayashi et al. and further in view of Jarocki et al. Claims 22-24 are dependent on claim 30 and Jarocki et al. is not cited for and does not make up for the above-noted deficiencies in Ihlenfeld and Hirabayashi et al. with respect to claim 30.

Claims 26, 27 and 31 stand rejected as obvious over Ihlenfeld in view of Hirabayashi et al. and further in view of Potega (U.S. Patent Publication No. 2003/0085621). The office action states

[w]ith respect to claim 31, Ihlenfeld discloses...coupling the heating element directly to the supply voltage regardless of whether the supply voltage is the domestic AC voltage or the foreign AC voltage (see Figure 2); providing a controller (on-off switch 102); coupling the controller (on-off switch 102) supply voltage (see Figure 7); operating user inputs (on-off switching functionality) to signal the controller (on-off switch 102) to control the operation of the heating element to heat liquid contained in a container (see Figure 7). (Office action page 26.)

Ihlenfeld's switch is manually controlled. Ihlenfeld states

[t]he invention is provided with a double pole on-off switch 102 having switch elements 104 and 106 adapted to engage and disengage with circuit conductors 108 and 110 respectively. With reference to the mechanical disclosure in the drawings, the on-off switch control is designated 112 and is shown in FIGS. 1, 3, and 4 of the drawings. This is a simple, manually operable switch control having a light 114 adjacent thereto, indicating energization of the conductors 108 and 110 shown in FIG. 7 of the drawings. (Column 5, lines 57-68.)

The above-quoted statement in the office action that Ihlenfeld discloses “operating user inputs (on-off switching functionality) to signal the controller (on-off switch 102) to control the operation of the heating element to heat liquid contained in a container (see Figure 7)” is incorrect. There is no teaching or suggestion in Ihlenfeld of inputs to signal the controller as suggested in the office action.

The office action states

Ihlenfeld discloses all of the limitations of the claimed invention, as previously set forth, **except** for the apparatus being operable over a range of AC voltages; a power supply having an input that couples to an AC voltage source, the power supply having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages; a heating element directly coupled to the AC voltage source in parallel with the power supply; and a controller coupled to the DC voltage output to receive power from the power supply, the controller being configured to control the operation of the heating element; the controller comprising a switch that is closeable to apply a specific AC voltage to the heating element if the beverage apparatus is operated in an area with the specific voltage and to apply a different AC voltage to the heating element if the beverage heating apparatus is operated in an area with a different AC voltage; the controller comprising a processor that controls the switch; the switch comprising a triac; a motor to which the DC voltage output of the power supply is coupled; and a temperature sensor that is coupled to the controller and that provides a signal to the controller which is indicative of a temperature; and the predetermined value being about 24 volts DC regardless of whether the input is receiving the domestic AC voltage or the foreign AC voltage.
(Office action pages 26-27, emphasis added.)

Notwithstanding that the office action acknowledges all of the above-admitted deficiencies in Ihlenfeld, the office action goes on to suggest that these deficiencies are somehow made up for by Hirabayashi. As discussed above with respect to the rejection of claims 2-4, 11, 13, 20-23 and 29-30, Hirabayashi et al. does not make up for the deficiencies in Ihlenfeld, there is no proper explanation of how to modify Ihlenfeld using Hirabayashi et al. and there is no proper motivation to combine Hirabayashi et al and Ihlenfeld. Notwithstanding these defects in the combination of Hirabayashi et al and Ihlenfeld the office action further urges “[s]imilarly, a power supply having a DC voltage output of substantially a predetermined value of about 24 volts DC regardless of whether the input is receiving the domestic AC voltage or the foreign AC

voltage is known in the art" and argues that Potega discloses this additional subject matter and it would have been obvious to one of ordinary skill in the art to further modify the combination of Hirabayashi et al and Ihlenfeld with

a power supply having an input that couples to an AC voltage source, the power supply having a DC voltage output of substantially a predetermined value regardless of the AC voltage within the range of AC voltages; a heating element directly coupled to the AC voltage source in parallel with the power supply; and a controller coupled to the DC voltage output to receive power from the power supply, the controller being configured to control the operation of the heating of Hirabayashi et al in order to provide a means for an apparatus to stably operate with plurality of rated voltage of power sources (column 2, lines 12-15), thereby increasing the versatility of the apparatus. (Office action page 29.)

Potega relates to a universal power supply that is able to deliver automatically the varied power requirements of multiple diverse devices attached to it and simultaneously and independently adjust the voltage or current or both supplied to each device. Potega does not make up for the deficiencies in Ihlenfeld. There is no proper explanation of how to further modify Ihlenfeld using Potega and there is no proper motivation to add elements of Potega with the resulting device from the combination of Hirabayashi et al and Ihlenfeld. The statement in the office action that one would have modified Ihlenfeld in order to provide a means for an apparatus to stably operate with plurality of rated voltage of power sources is unrealistic since no one would try to use Ihlenfeld's coffee maker having a manual switch for either 110V or 220V supply. There is no attempt in the office action to describe what specific elements in Potega are to be used to modify Ihlenfeld and/or Hirabayashi et al. There is no attempt in the office action to describe what how such specific elements in Potega are to be used to modify Ihlenfeld as modified by Hirabayashi et al. Without these explanations there is no *prima facie* case of obviousness.

Claim 28 stands rejected as obvious over Ihlenfeld in view of Hirabayashi et al. and Potega and further in view of Herrick et al. Claim 28 is dependent on claim 31 and Herrick et al. is not cited for and does not make up for the above-noted deficiencies in Ihlenfeld, Hirabayashi et al. and Potega with respect to claim 31.

For all of these reasons there is no prima facie case of obviousness with respect to claims 2-24 and 26-31. The obviousness rejections are improper and it is respectfully requested that they be withdrawn.

Conclusion

Entry of the above claim amendment is requested.

In view of the above amendment and comments it is urged that the application with claims 2-24 and 26-31 is in condition for allowance and such action is, respectfully, requested.

If there is any issue remaining to be resolved, the examiner is invited to telephone the undersigned so that resolution can be promptly effected.

It is requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response with the fee for such extensions and shortages in other fees, being charged, or any overpayment in fees being credited, to the Account of Barnes & Thornburg, Deposit Account No. 10-0435 (27726-99611).

Respectfully submitted,
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